

1/8

FIG. 1

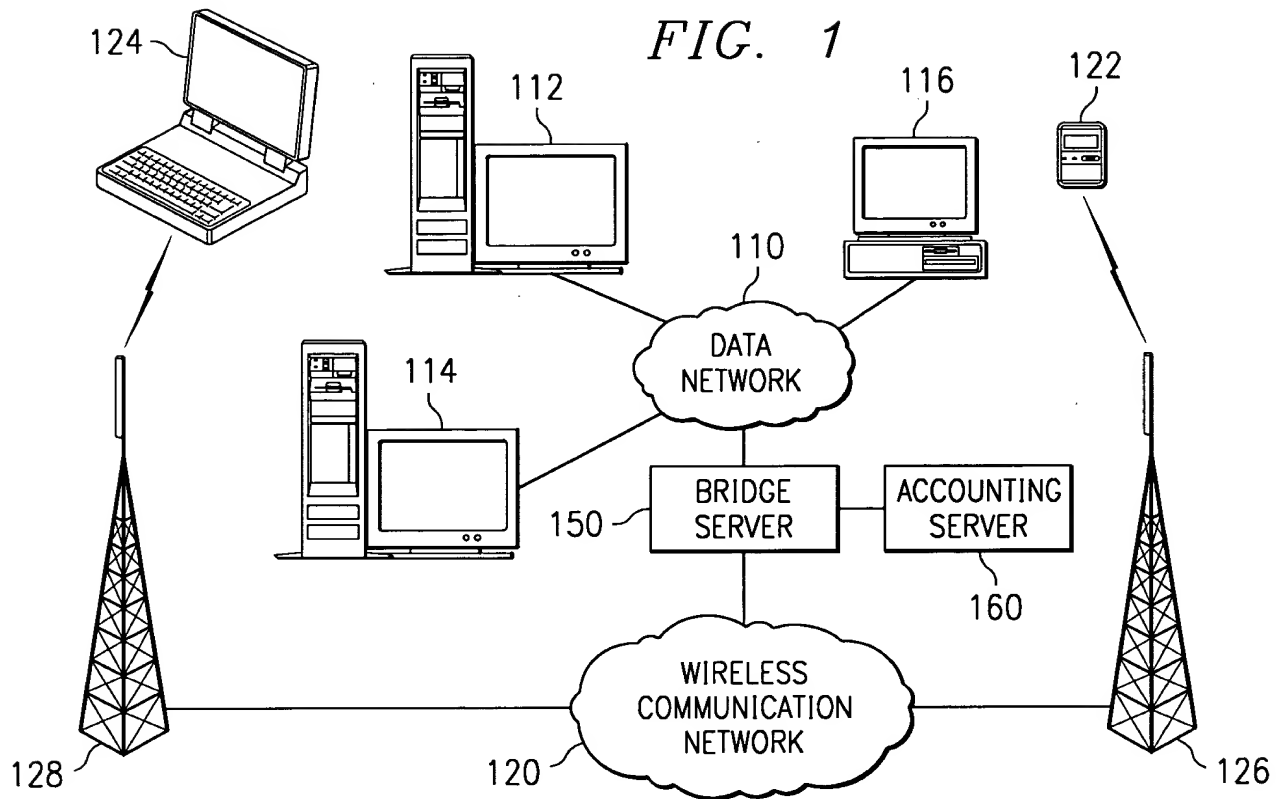


FIG. 2

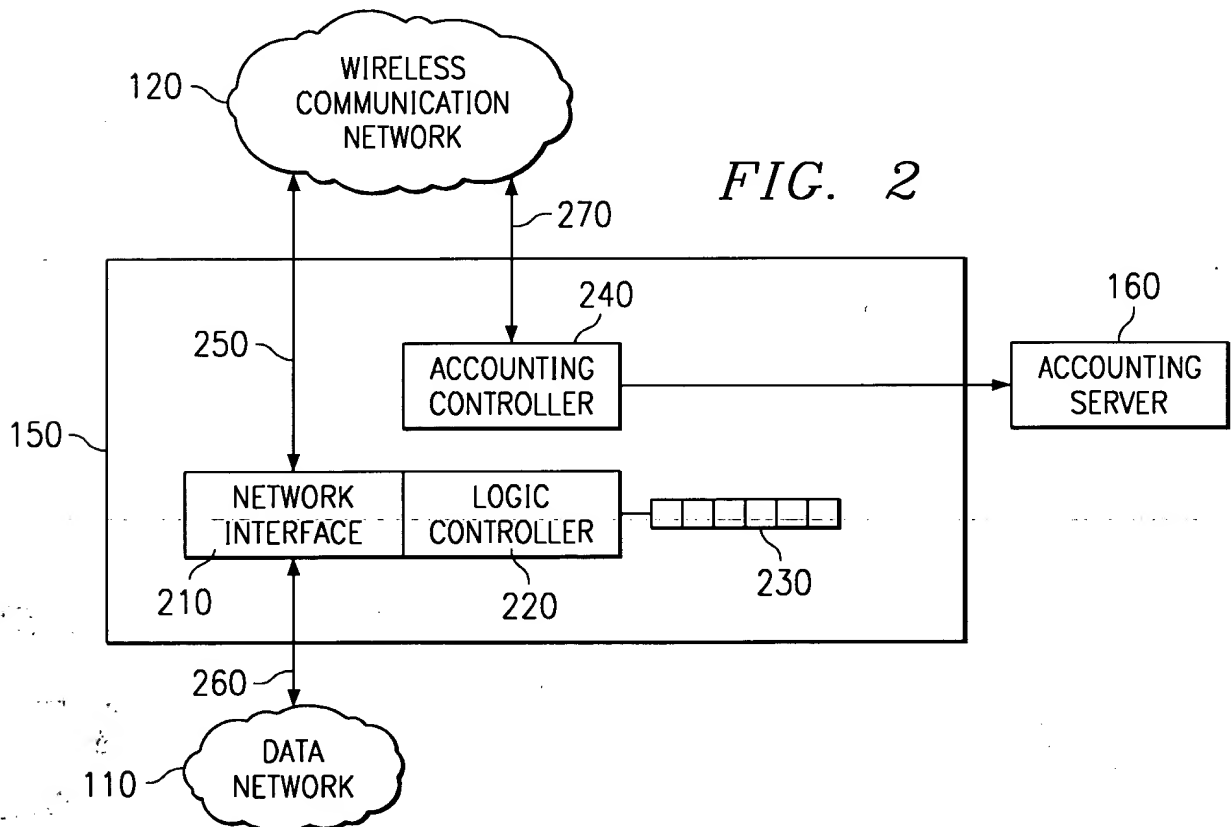


FIG. 3

	ITEM	PARAMETER	MAX PAYLOAD LENGTH	FORMAT
310		AIRLINK RECORD TYPE = Y1 (CONNECTION SETUP)	1	INTEGER
320		R-P SESSION ID	4	STRING
330	A1	MSID	15	STRING
340	D3	SERVING PCF	4	IP-ADDR
350	D4	BS/MSC ID	6	INTEGER

FIG. 4

	ITEM	PARAMETER	MAX PAYLOAD LENGTH	FORMAT
410	Y	AIRLINK RECORD TYPE = Y2 (CONNECTION RELEASE)	1	INTEGER
420	C1	R-P SESSION ID	4	STRING

FIG. 5

	ITEM	PARAMETER	MAX PAYLOAD LENGTH	FORMAT
505		AIRLINK RECORD TYPE = Y3 (ACTIVE START)	1	INTEGER
510		R-P SESSION ID	4	STRING
515	E1	USER ZONE	2	INTEGER
520	F1	FORWARD MUX OPTION	2	INTEGER
525	F2	REVERSE MUX OPTION	2	INTEGER
530	F3	FORWARD FUNDAMENTAL RATE	1	INTEGER
535	F4	REVERSE FUNDAMENTAL RATE	1	INTEGER
540	F5	SERVICE OPTION	2	INTEGER
545	F6	FORWARD TRAFFIC TYPE (PRIMARY, SECONDARY)	1	INTEGER
550	F7	REVERSE TRAFFIC TYPE (PRIMARY, SECONDARY)	1	INTEGER
555	F8	FUNDAMENTAL FRAME SIZE (5/20 ms)	1	INTEGER
560	F9	FORWARD FUNDAMENTAL RC	1	INTEGER
565	F10	REVERSE FUNDAMENTAL RC	1	INTEGER
570	I4	AIRLINK QUALITY OF SERVICE (QOS)	4	INTEGER

FIG. 6

ITEM	PARAMETER	MAX PAYLOAD LENGTH	FORMAT
610	AIRLINK RECORD TYPE = Y4 (ACTIVE STOP)	1	INTEGER
620	R-P SESSION ID	4	STRING
630	G8 ACTIVE CONNECTION TIME IN SECONDS	4	INTEGER

FIG. 7

ITEM	PARAMETER	MAX PAYLOAD LENGTH	FORMAT
710	AIRLINK RECORD TYPE = SDB	1	INTEGER
720	R-P SESSION ID	4	STRING
730	F4 MOBILE ORIGINATED/MOBILE TERMINATED INDICATOR	1	INTEGER
740	G10 SDB OCTET COUNT	4	INTEGER

FIG. 9

TIME	WIRELESS COMMUNICATION NETWORK	ACCOUNTING CONTROLLER
1	MS IS DORMANT	
2		NETWORK ORIGINATED DATA ENTERS DN AND SENT TO WCN ◦ octet_count INCREMENTED
3	SDB IS BEING TRANSMITTED OVER THE AIR	MORE NETWORK DATA ENTERS DN AND SENT TO WCN ◦ octet_count INCREMENTED
4	◦ AIRLINK RECORD (SDB, sdb_octets1) SENT	◦ START AND STOP RECORDS SENT TO ACCOUNTING SERVER USING sdb_octets1 ◦ octet_count DECREMENTED BY sdb_octets1
5	RN DECIDES TO PUT MS ON TRAFFIC_CHANNEL ◦ ACTIVE START AIRLINK RECORD SENT	◦ START RECORD SENT TO ACCOUNTING SERVER
◦ ◦ ◦	◦ ◦ ◦	◦ ◦ ◦
0	MS GOES DORMANT ◦ ACTIVE STOP AIRLINK RECORD SENT	◦ STOP RECORD SENT TO ACCOUNTING SERVER WITH octet_count ◦ octet_count ZEROED

ITEM	PARAMETER	DESCRIPTION
810	A. MOBILE IDENTIFIERS	
	A1 MSID	
820	B. USER IDENTIFIERS	
	B1 IP ADDRESS	IP ADDRESS OF THE MOBILE STATION
	B2 NETWORK ACCESS IDENTIFIER (NAI)	USER@DOMAIN CONSTRUCT WHICH IDENTIFIES THE USER AND HOME NETWORK OF THE MOBILE STATION
825	C. SESSION IDENTIFIERS	
	C1 ACCOUNT SESSION ID	A UNIQUE ACCOUNTING ID. ID CREATED BY THE PDSN THAT ALLOWS STOP AND START RECORDS TO BE MATCHED IN A LOG FILE
	C2 CORRELATION ID	AN ID THAT CORRELATES ALL ACCOUNTING SESSIONS AUTHORIZED FOR THIS NAI BY THIS ACCESS REQUEST
830	D. INFRASTRUCTURE IDENTIFIERS	
	D1 MIP HOME AGENT (HA)	THE IP ADDRESS OF THE HA
	D2 PDSN/FA ADDRESS	IP ADDRESS OR OTHER IDENTIFIER
	D3 SERVING PCF	THE IP ADDRESS OF THE SERVING PCF
	D4 BS/MSC ID	THE IP ADDRESS OF THE BS/MSC
840	E. ZONE IDENTIFIERS	
	E1 USER ZONE	TIERED SERVICES USER ZONE
850	F. SESSION STATUS	
	F1 FORWARD MUX OPTION	
	F2 REVERSE MUX OPTION	
	F3 FORWARD FUNDAMENTAL RATE	
	F4 REVERSE FUNDAMENTAL RATE	
	F5 SERVICE OPTION	
	F6 FORWARD TRAFFIC TYPE	PRIMARY AND SECONDARY
	F7 REVERSE TRAFFIC TYPE (PRIMARY, SECONDARY)	PRIMARY AND SECONDARY
	F8 FUNDAMENTAL FRAME SIZE	THE FUNDAMENTAL CHANNEL HAS THE CHOICE OF 5 OR 20 ms SIZE. THE 5ms FRAME SIZE COMES FROM THE DCCH (DEDICATED SIGNALING CHANNEL) CONCEPT AND ALLOWS FAST RESPONSE FOR SHORT SIGNALING MESSAGES (SHORT FRAME CAN BE DECODED QUICKLY)
	F9 FORWARD FUNDAMENTAL RC	
	F10 REVERSE FUNDAMENTAL RC	
	F11 IP TECHNOLOGY	IDENTIFIES SIMPLE IP, MOBILE IP, OR ANOTHER TECHNOLOGY

FIG. 8B

5/8

FROM FIG. 8A

860

ITEM	PARAMETER	DESCRIPTION
F12	COMPULSORY TUNNEL INDICATOR	INDICATOR OF INVOCATION OF COMPULSORY TUNNEL ESTABLISHED ON BEHALF OF MS FOR PROVIDING PRIVATE NETWORK AND/OR ISP ACCESS DURING A SINGLE PACKET DATA CONNECTION
F13	RELEASE INDICATOR	SPECIFIES REASON FOR SENDING A STOP RECORD
G. SESSION ACTIVITY		
G1	DATA OCTET COUNT (TERMINATING)	TOTAL NUMBER OF OCTETS SENT TO THE USER
G2	DATA OCTET COUNT (ORIGINATING)	TOTAL NUMBER OF OCTETS SENT BY THE USER
G3	BAD PPP FRAME COUNT	TOTAL NUMBER PPP FRAMES FROM THE MOBILE STATION DROPPED BY PDSN DUE TO UNCORRECTABLE ERRORS
G4	EVENT TIME	INDICATES START OF ACCOUNTING SESSION OR STOP OF ACCOUNTING SESSION IF PART OF A RADIUS START MESSAGE OR STOP MESSAGE, RESPECTIVELY. IT IS ALSO USED IN A RADIUS INTERIM MESSAGE TO INDICATE THE TIME OF THE EVENT WHICH TRIGGERED THE INTERIM MESSAGE
G8	ACTIVE TIME	THE TOTAL ACTIVE CONNECTION TIME ON TRAFFIC CHANNEL IN SECONDS
G9	NUMBER OF ACTIVE TRANSITIONS	THE TOTAL NUMBER OF NON-ACTIVE TO ACTIVE TRANSITIONS BY THE USER
G10	SDB OCTET COUNT (TERMINATING)	THE TOTAL NUMBER OF OCTETS SENT TO THE USER VIA SHORT DATA BURSTS
G11	SDB OCTET COUNT (ORIGINATING)	THE TOTAL NUMBER OF OCTETS SENT BY THE USER VIA SHORT DATA BURSTS
G12	NUMBER OF SDBs (TERMINATING)	THE TOTAL NUMBER OF SHORT DATA BURST TRANSACTIONS
G13	NUMBER OF SDBs (ORIGINATING)	THE TOTAL NUMBER OF SHORT DATA BURST TRANSACTIONS
H. SPECIAL BILLING INSTRUCTIONS		
H1	ALTERNATE BILLING IDENTIFIER	AN IP ADDRESS OR OTHER IDENTIFIER OF ALTERNATE ENTITY FOR WHICH DATA SESSION USAGE MAY BE BILLED
I. QUALITY OF SERVICE		
I1	IP QUALITY OF SERVICE (QOS)	THE HOME RADIUS SERVER AUTHORIZES THE MOBILE TO MARK PACKETS (ONLY) WITH THESE DIFFERENTIATED SERVICES CODE POINTS
I2	INTERCONNECTION IP NETWORK PROVIDER ID	IDENTIFIES IP NETWORK WHICH CONNECTS WIRELESS CARRIER NETWORK TO DESTINATION
I3	INTERCONNECTING IP NETWORK SERVICE QUALITY OF SERVICE	IDENTIFIES QOS OFFERED BY IP NETWORK WHICH CONNECTS WIRELESS CARRIER NETWORK TO DESTINATION
I4	AIRLINK QUALITY OF SERVICE (QOS)	IDENTIFIES AIRLINK QOS

870

880

FIG. 10

TIME	WIRELESS COMMUNICATION NETWORK	ACCOUNTING CONTROLLER
1		MS IS DORMANT
2		NETWORK ORIGINATED DATA ENTERS DN AND SENT TO WCN ◦ octet_count INCREMENTED
3	SDB1 IS BEING TRANSMITTED OVER THE AIR	MORE NETWORK DATA ENTERS DN AND SENT TO WCN ◦ octet_count INCREMENTED
4	SDB2 IS BEING TRANSMITTED OVER THE AIR ◦ AIRLINK RECORD (SDB1, sdb_octets1) SENT	MORE NETWORK DATA ENTERS DN AND SENT TO WCN ◦ INCREMENTS num_SDBs BY 1, AND total_SDB_octets BY sdb_octets1 ◦ octet_count INCREMENTED
5	SDB3 IS BEING TRANSMITTED OVER THE AIR ◦ AIRLINK RECORD (SDB2, sdb_octets2) SENT	MORE NETWORK DATA ENTERS DN AND SENT TO WCN ◦ PDSN INCREMENTS num_SDBs BY 1, AND total_SDB_octets BY sdb_octets2 ◦ octet_count INCREMENTED
6		INTERIM TIMER EXPIRES ◦ START AND STOP RECORDS SENT TO ACCOUNTING SERVER USING num_SDBs, total_SDB_octets and octet_count ◦ CLEAR num_SDBs, total_SDB_octets AND octet_count
7	◦ AIRLINK RECORD (SDB3, sdb_octets3) SENT	MORE NETWORK DATA ENTERS DN AND SENT TO WCN ◦ INCREMENTS num_SDBs BY 1, AND total_SDB_octets BY sdb_octets3 ◦ octet_count INCREMENTED
8	WCN DECIDES TO PUT MS ON TRAFFIC CHANNEL ◦ ACTIVE START AIRLINK RECORD SENT	MORE NETWORK DATA ENTERS DN AND SENT TO WCN ◦ START RECORD SENT TO ACCOUNTING SERVER WITH num_SDBs, total_SDB_octets AND octet_count ◦ octet_count INCREMENTED
◦ ◦ ◦	◦ ◦ ◦	◦ ◦ ◦
n	MS GOES DORMANT ◦ ACTIVE STOP AIRLINK RECORD SENT	◦ STOP RECORD SENT TO ACCOUNTING SERVER WITH num_SDBs, total_SDB_octets AND octet_count ◦ CLEAR num_SDBs, total_SDB_octets AND octet_count

FIG. 11

TIME	WIRELESS COMMUNICATION NETWORK	ACCOUNTING CONTROLLER
1	MS IS DORMANT	
2		NETWORK ORIGINATED DATA ENTERS DN AND SENT TO WCN ◦ octet_count INCREMENTED
3	WCN DECIDES TO PUT MS ON TRAFFIC CHANNEL ◦ ACTIVE START AIRLINK RECORD SENT	NETWORK ORIGINATED DATA ENTERS DN AND SENT TO WCN ◦ START RECORD SENT TO ACCOUNTING SERVER ◦ octet_count INCREMENTED
4	MS GOES DORMANT ◦ ACTIVE STOP AIRLINK RECORD SENT	◦ STOP RECORD SENT TO ACCOUNTING SERVER USING octet_count ◦ octet_count ZEROED
5		NETWORK ORIGINATED DATA ENTERS DN AND SENT TO WCN ◦ octet_count INCREMENTED
6	WCN DECIDES TO PUT MS ON TRAFFIC CHANNEL ◦ ACTIVE START AIRLINK RECORD SENT	◦ START RECORD SENT TO ACCOUNTING SERVER
7	MS GOES DORMANT ◦ ACTIVE STOP AIRLINK RECORD SENT	◦ STOP RECORD SENT TO ACCOUNTING SERVER WITH octet_count ◦ octet_count ZEROED

FIG. 12

TIME	WIRELESS COMMUNICATION NETWORK	ACCOUNTING CONTROLLER
1	WCN DECIDES TO PUT MS ON TRAFFIC CHANNEL AND NEW PPP IS ESTABLISHED ◦ ACTIVE START AIRLINK RECORD (NEW PPP) SENT	◦ START RECORD SENT TO ACCOUNTING SERVER
2	MS GOES DORMANT ◦ ACTIVE STOP AIRLINK RECORD (active_time1) SENT	◦ INCREMENT total_active_time BY active_time1
3		NETWORK ORIGINATED DATA ENTERS DN AND SENT TO WCN ◦ octet_count INCREMENTED
4	WCN DECIDES TO PUT MS ON TRAFFIC CHANNEL ◦ ACTIVE START AIRLINK RECORD SENT	NETWORK ORIGINATED DATA ENTERS DN AND SENT TO WCN ◦ octet_count INCREMENTED
5	MS GOES DORMANT ◦ ACTIVE STOP AIRLINK RECORD (active_time2) SENT	◦ INCREMENT total_active_time BY active_time2
6		INTERIM TIMER EXPIRES ◦ INTERIM RECORD SENT TO ACCOUNTING SERVER WITH octet_count AND total_active_time ◦ octet_count AND total_active_time ZEROED
◦ ◦ ◦	◦ ◦ ◦	◦ ◦ ◦
n		PPP SESSION IS CLOSED (TIMEOUT) ◦ STOP RECORD SENT TO ACCOUNTING SERVER WITH octet_count AND total_active_time